# Homework 2

CMSY-199, Spring 2014

Upload your solution to the Canvas course website as a zip archive file prior to the start of class on Monday, February 24.

1. Create a class called `Date` that *has*:

   (a) three integer instance variables – `month`, `day`, and `year`

   (b) a three-argument constructor that initializes all three instance variables

   (c) setter and getter methods for each instance variable which ensure that the values being set are valid

   (d) a method `toString` that returns the month, day, and year separated by forward slashes (/) as a `String`

   For this assignment, consider a valid month to be any integer from 1 to 12, a valid day to be any integer from 1 to 31, and a valid year to be any integer (the current year should be represented as 2014).

2. Write a Java application called `NormalRetirementAge` that computes a person's normal retirement age for Social Security. The normal retirement age has traditionally been 65, but gradually increases for people born in 1938 and later according to the table below.

| **Year of Birth** | **Normal Retirement Age** |
|---|---|
| 1937 and prior | 65 |
| 1938 | 65 and 2 months |
| 1939 | 65 and 4 months |
| 1940 | 65 and 6 months |
| 1941 | 65 and 8 months |
| 1942 | 65 and 10 months |
| 1943-54 | 66 |
| 1955 | 66 and 2 months |
| 1956 | 66 and 4 months |
| 1957 | 66 and 6 months |
| 1958 | 66 and 8 months |
| 1959 | 66 and 10 months |
| 1960 and later | 67 |

   Provide a `static` method called `compute` that takes a person's birthdate as a `Date` object and returns the person's normal retirement age as a `String`. Note that anyone born on January 1st is treated as if they were born in the previous year.